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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/915,348	07/27/2001	Tomoya Kodama	212091US2SRD	7192

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ALEXANDRIA, VA 22314

EXAMINER

CHAU, COREY P

ART UNIT	PAPER NUMBER
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2644

DATE MAILED: 05/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/915,348

Applicant(s)

KODAMA, TOMOYA

Examiner

Corey P Chau

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-5, 8-10, and 13-19 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Pub. 2003/0014264 to Fujii et al. (hereafter as Fujii).

3. Regarding Claim 1, Fujii discloses an audio processor which processes an input data stream via an external memory device (3), comprising: a control device (6) connected to the external memory device (Fig. 2) which stores programs and data streams used for sequentially executing a plurality of processes, the control device being configured to fetch in, when executing one of the processes, a program and data

stream corresponding to next one of the processes from the external memory device; an internal memory (8) connected to the control device and configured to store the program and data stream read from the external memory device and corresponding to the one and next one of the processes; and a data processor (7) connected to the internal memory and configured to subject the input data stream to the process based on the program and data stream read from the internal memory.

4. Regarding Claim 2, Fujii discloses the input data stream includes an audio data stream, and the data processor sequentially subjects the audio data stream to decoding, noise-less decoding, noise reduction, filter bank, and block switching in accordance with the programs and data streams read from the external memory device in units of one process (page 6, paragraph 0106).

5. Regarding Claim 3, Fujii discloses the data processor is configured to execute the program fetched in the internal memory (8) from the external memory device (3) in accordance with progress of the processes (Figs. 2 and 3; page 6, paragraph 0101; page 7, paragraph 0129).

6. Regarding Claim 4, Fujii discloses a system processor, which separates the input data stream into a video stream and an audio stream, and writes the video and audio streams into different and independent memory regions of the external memory device, respectively (page 6, paragraph 0114).

7. Regarding Claim 5, Fujii discloses the data processor is configured to subject the audio stream to signal processing according to the program (page 1, paragraph 0015).

8. Regarding Claim 8, Fujii discloses the control device sequentially transfers a plurality of program modules corresponding to the plurality of processes to the data processor from the external memory device according to the progress of the processes (fig. 3; page 8, paragraph 0146).

9. Claim 9 is essentially similar to Claim 2 and is rejected for the reasons state above apropos to Claim 2.

10. Regarding Claim 10, Fujii discloses a data processor includes a function of predicting which process is performed after the process, which is currently performed (figs. 2 and 3; pages 5-6, paragraphs 0097-0101).

11. Regarding Claim 13, Fujii disclose the processor allows data, which is determined to be unused for a long time to be saved from the internal memory to the external memory device (page 6, paragraphs 0103- 0104; page 11, paragraphs 0219-0220).

12. Regarding Claim 14, Fujii discloses the processor releases the storage region of the data or the program, which becomes unnecessary (page 6, paragraphs 0103- 0104; page 11, paragraphs 0219-0220).

13. Claim 15 is essentially similar to Claims 1, 6, and 7 and is rejected for the reasons stated above apropos to Claims 1, 6, and 7.

14. Regarding Claim 16, Fujii discloses the data processor temporally stops when accessing of the DMA controller to the instruction memory or the data memory competes with accessing of the data processor to the instruction memory or the data memory (page 8, paragraph 0144).

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15. Claim 17 is essentially similar to Claim 1 and is rejected for the reasons stated above apropos to Claim 1.

16. Claim 18 is essentially to Claim 2 and is rejected for the reasons stated above apropos to Claim 2.

17. Claim 19 is essentially similar to Claim 1 and is rejected for the reasons stated above apropos to Claim 1.

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. Claims 6, 7, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Pub. 2003/0014264 to Fujii et al. (hereafter as Fujii).

20. Regarding Claim 6, Fujii discloses an internal memory, but does not expressly disclose an instruction memory and data memory. However it would have been obvious to one of ordinary skill in the art that the internal memory stores instruction information and data information, therefore the internal memory is comprising of an instruction memory and data memory.

21. Regarding Claim 7, Fujii as modified discloses a DMA controller configured to control writing of data to the external memory device, the instruction memory and the

data memory, and reading of the data therefrom by a direct access memory transfer (page 6, paragraphs 0115-0121; page 11, paragraph 0219).

22. Regarding Claim 11, Fujii as modified discloses the internal memory stores a program module which request the DMA controller for preparing, while continuing the processing which is currently performed, the data group and instruction group that are required for the next process (page 6, paragraphs 0115-0121; page 11, paragraph 0219).

23. Regarding Claim 12, Fujii as modified discloses a DMA transfer instruction is added to the program module in order to read the program module used in the next process from the external memory device, the DMA transfer instruction allowing to read the program module with the DMA transfer by specifying the storage area (page 6, paragraphs 0115-0121; page 11, paragraph 0219).

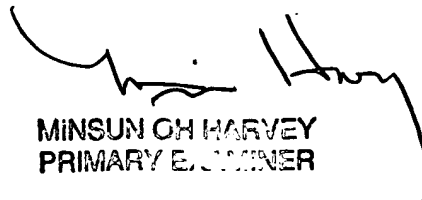
Conclusion

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Corey P Chau whose telephone number is (703)305-0683. The examiner can normally be reached on Monday - Friday 9:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W Isen can be reached on (703)305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

May 3, 2004



MINSUN OH HARVEY
PRIMARY EXAMINER